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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/630,806 | 07/31/2003 | James F. Stewart | PAT 537AW-2 US | 9776 |

26123 7590 09/18/2006

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CANADA

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| EXAMINER |
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CLARDY, S

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| ART UNIT | PAPER NUMBER |
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1617

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/630,806 | Applicant(s) STEWART ET AL. | |
| | Examiner S. Mark Clardy | Art Unit 1617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/415,294.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>10/20/03</u> , <u>4/29/03</u> , <u>2/7/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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Claims 1-6 are pending in this application.

Applicants' claims are drawn to agrochemical formulation aid compositions comprising:

1. Monocarbamide dihydrogen sulfate¹ 1 – 99 parts
2. A blend comprising: 50 – 1 parts:
 - a. phosphate ester blend² 1 – 99 %
 - b. tallow amine ethoxylate 99 – 1 %
 - c. optionally:

| | |
|-----------------------------------|-----------|
| fatty acid methyl ester | 0 – 25 % |
| free fatty acid blend | 0 – 5 % |
| linear alcohol blend ³ | 0 – 10 % |
| oleyl cetyl alcohol ⁴ | 0 – 1 % |
| polyethylene glycol (PEG) | 0 – 10 % |
| water | (balance) |

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Agbaje et al (US 6,165,939), Atwater PCT WO 93/14637), and Roberts et al (US5,877,112).

Agbaje et al teach herbicidal concentrates comprising various herbicides (columns 9-10) in combination with both phosphate ester and tallowamine surfactants (col 14, lines 33-41) such

¹ Urea sulfate, H₂N-CO-NH₂ · H₂SO₄

² Claim 3: alkyl(aryl) ethoxylate phosphate esters

³ Claim 2: 2N-octanol (0 – 0.5%) and N-butanol (0 – 1%)

⁴ Taken to be a mixture of oleyl alcohol (octadecen-1-ol) and cetyl alcohol (hexadecanol)

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as a blend of nonylphenol polyoxyethylene (3-9) phosphate and polyoxyethylene (5) tallowamine. Diquat is among the disclosed water soluble herbicides.

Atwater teaches herbicidal compositions comprising diquat and monocarbamide dihydrogen sulfate (abstract).

Roberts et al teach the utility of combining tallowamine ethoxylates and phosphate esters to enhance solubility in herbicidal compositions (abstract).

One of ordinary skill in the art would be motivated to combine these references in order to enhance the solubility and concentration of herbicidal compositions comprising herbicides such as diquat.

Thus it would have been *prima facie* obvious to the ordinary artisan at the time the invention was made to have combined applicants components in a single composition because the prior art teaches the combination of phosphate esters and tallowamine ethoxylates in concentrated (Agbaje et al) and enhanced solubility (Roberts et al) herbicidal compositions, and because applicants' urea sulfate was also known in the art to improve the effect of herbicides such as diquat which were known to be formulated with the tallowamine and phosphate components. It is *prima facie* obvious to formulate such herbicidal compositions with additional optional surface active materials.

No unobvious or unexpected results are noted; no claim is allowed.

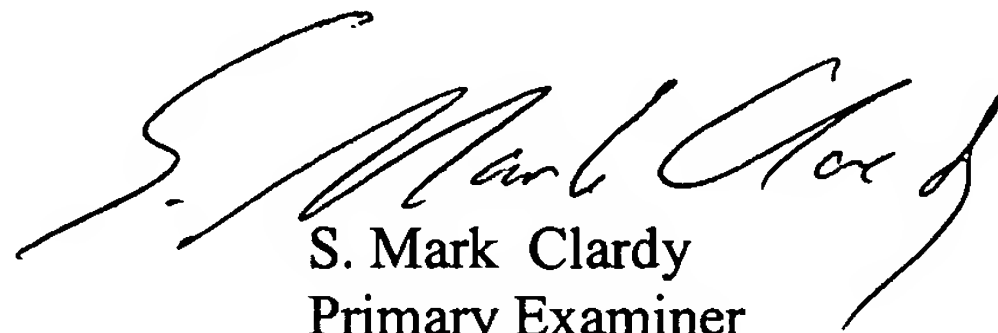
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 571-272-0611. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'S. Mark Clardy', is positioned above the printed name and title.

S. Mark Clardy
Primary Examiner
Art Unit 1617

September 14, 2005